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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,522	12/21/2001	Lawrence A. Leske	2334P	5912

7590 06/07/2005
SAWYER LAW GROUP LLP
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EXAMINER

GRIER, LAURA A

ART UNIT PAPER NUMBER

2644

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/029,522	Applicant(s) LESKE ET AL.	
	Examiner Laura A. Grier	Art Unit 2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,5,6,10,11,13-15,17 and 20 is/are rejected.
- 7) ☒ Claim(s) 2-4, 7-9, 12, 16, 18-19 and 21-22 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/7/02</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 21 of copending Application No.: US20030118193. Although the conflicting claims are not identical, they are not patentably distinct from each other because is drawn to a digitally modulated signal driving a transducer.

Regarding claim 1, US20030118193 discloses in claim 21 a transducer comprising means for providing a digitally modulated signal, which reads on a digitally modulating a primary input signal for driving a transducer; means for measuring the voltage across the transducer during the off time of the digitally modulated signal, which indicates sampling an output signal generated from the transducer during off times of the modulated signal, wherein it is obvious that measured voltage is the back EMF,

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which in an input signal, which indicates determining an input signal from the sampled output signal.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 5, 13-14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Nielsen, U. S. Pub. No; 2004016112.

Regarding claim 1 and 5 and 13, Nielsen discloses an apparatus for electric to acoustic conversion. Nielsen disclosure comprises an audio transducer, an interface, a digital pulse width modulator, and power source/power switches, a sensor input from the audio transducer (see figures 5 and 6, paragraphs 0047, 0049, 0051), which indicates digitally modulating sampling and determining, and/or detecting and sampling in response.

Regarding claim 14, Nielsen discloses everything claimed as applied above (see claim 14). Nielsen inherently discloses the sampling as claimed as evident of the feedback sensor (figures 5 and 6).

Regarding claim 15, Nielsen discloses an apparatus for electric to acoustic conversion. Nielsen disclosure comprises an audio transducer, an interface, a digital pulse width modulator, and power source/power switches, a sensor input which may be a microphone (see figures 5 and 6, paragraphs 0047, 0049, 0051), which indicates a audio transducer, a system interface, circuit, a power switch, and a microphone generation.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6, 10-11, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nielsen in view of Konno et al., U. S. Patent No. 6122385.

Regarding claim 6 and 17, Nielsen discloses everything claimed as applied above (see claims 5 and 16). Nielsen fails to disclose a filter.

Regarding the filter, Konno et al. (herein, Konno) discloses a system with loudspeaker feedback, and Konno's disclosure comprises a filter (col. 1, lines 52-65).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Nielsen by providing a filter for the providing a filter to control the frequency characteristics of the feedback signal.

Regarding claim 10 and 20, Nielsen discloses everything claimed as applied above (see claims 5 and 16). Nielsen fails to disclose a amplifier

Regarding the amplifier, Konno discloses a system with loudspeaker feedback, and Konno's disclosure comprises a microphone amplifier (col. 1, lines 52-65).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Nielsen by providing an amplifier for the purpose of strengthen the signal output by the microphone (sensor).

Regarding claim 11, Nielsen discloses everything claimed as applied above (see claim 5). Even though, Nielson discloses digital modulation, Nielsen fails to disclose a A/D converter. The examiner takes official notice that A/D converter was well known in the art. Thus, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Nielsen by providing an A/D converter for the purpose of sampling the amplifier signal to create an adequate analog signal for efficient processing.


7. Claims 2-4, 7-9, 12, 15, 18-19 and 21-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A. Grier whose telephone number is (571) 272-7518. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh N. Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Laura A. Grier
June 2, 2005